



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,877	04/13/2004	Osbert H. Cheung	D/OC-001	3175
7590	12/20/2007		EXAMINER	
Bernard A. Chiama 4911 Baker St., Ext., #42 Ashville, NY 14710			HALL, ASHA J	
		ART UNIT	PAPER NUMBER	
		1795		
		MAIL DATE	DELIVERY MODE	
		12/20/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/822,877	CHEUNG, OSBERT H.
	Examiner Asha Hall	Art Unit 1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 01 October 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,3 and 7-9 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,3 and 7-9 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application
- 6) Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, and 7- 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Komori et al. (5,728,230).

With regard to claim 1, Komori et al. discloses a photovoltaic module (101) as shown in Figure 1 as adapted for attachment to supporting structure on buildings (col. 2; lines: 18-22), vehicles, or other fixed or mobile structure, comprising a photovoltaic element (101) including one or more photovoltaic solar cells each with one side arranged to receive sun rays (col. 1; lines: 20-23) thereon for generating electrical current (col. 2; lines: 32-33) in response to sun light impinging thereon (col. 1; lines: 6-13) and another side facing the support structure (col. 1; lines: 6-13), said solar cell(s) being encapsulated directly/cover with organic polymer (col. 2; lines: 27-29) between sealant, adhesive layers (105) to form the photovoltaic element (101), said photovoltaic element including a back protection layer/insulation film (106) (col. 3; lines: 34-35) (the back material could be made of a room temperature curing material such as unsaturated polyester resin as evidence given by Li et al., "Low temperature cure of

unsaturated polyester resins with thermoplastic additives structure formation and shrinkage control mechanism," *Polymer*, 41(2001) p.707), a reinforcing support sheet (107), and an adhesive material being adhesively attached between said reinforcing support sheet (107) and said protection layer/ insulation film (106), said adhesive material (col. 5; lines: 8-13) being adapted to be applied to said reinforcing support sheet during final installation at room temperature (col. 1; lines: 46-51).

In regard to claim 3, Komori et al. discloses the photovoltaic module (Figure 1) as defined in claim 1, wherein the adhesive in said adhesive material selected from the group of silicone adhesives, urethane adhesive and epoxy adhesive (col.5; lines: 8-13).

In regard to claim 7, Komori et al. discloses the photovoltaic module (Figure 1) as defined in claim 1, Komori et al. further discloses the reinforcing sheet (107) is made of one selected from zinc steel plate, plastic sheet, glass, and fiberglass reinforced panel (col.6; lines: 4-7).

With respect to claims 8 and 9, Komori et al. discloses the method for producing a photovoltaic element (col.3; lines: 28-36) having one or more solar cells and applying the same to a reinforcing support sheet (107) with the solar cell(s) facing sunlight for the impingement of sunlight thereon (col. 1;lines: 20-23), comprising the steps of stacking in order (Figure 1): a cover face plate/transparent resin (103) having an adhesive layer (105) provided on one surface thereof being applied to the side(s) of the solar/photovoltaic cell (101)(s) facing sunlight, an insulating protection layer (106) with adhesive material (105) applied between the same and the other side of the solar

cell(s), laminating said cover plate/transparent resin (103) and said protection layer (106) with said solar/photovoltaic cells (101) there between, and bonding said reinforcing sheet (107) to said protection layer/insulation film (106) with adhesive material (105) at room temperature (col.3; liens 49-55). Komori et al. further discloses the insulating layer (106) is one selected from polyester/polyethylene teraphthalate, and nylon (col.3; lines: 38-41).

Response to Arguments

Claim rejection under 35 U.S.C. § 102

3. Applicant's arguments filed on July 2, 2007 have been fully considered but they are not persuasive. In regard to claim 1, the Applicant has argued that Komori does not disclose encapsulating and applying directly an adhesive arrangement.

The Examiner respectfully disagrees and as stated in the rejection to the amended claims above, Komori et al. covers with organic polymer (col. 2; lines: 27-29) which is reads on the applicant's claim of encapsulating directly the organic adhesive.

4. With respect to claim 1, the Applicant has argued that Komori et al. utilized that an adhesive material that allows for room temperature fabrication. The Applicant does not specify the type of adhesive employed in claim 1, so the Examiner has found a reference that discloses the use of an adhesive polyester resin by Li et al. that cures at room temperature (the back material could be made of a room temperature curing material such as unsaturated polyester resin as evidence given by Li et al., "Low temperature cure of unsaturated polyester resins with thermoplastic additives structure formation and shrinkage control mechanism," *Polymer*, 41(2001) p.707),.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Asha Hall whose telephone number is 571-272-9812. The examiner can normally be reached on Monday-Thursday 8:00-6:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexa Neckel can be reached on 571-272-1446. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1795

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Alex Neckel
ALEXA D. NECKEL
SUPERVISORY PATENT EXAMINER

AJH

64